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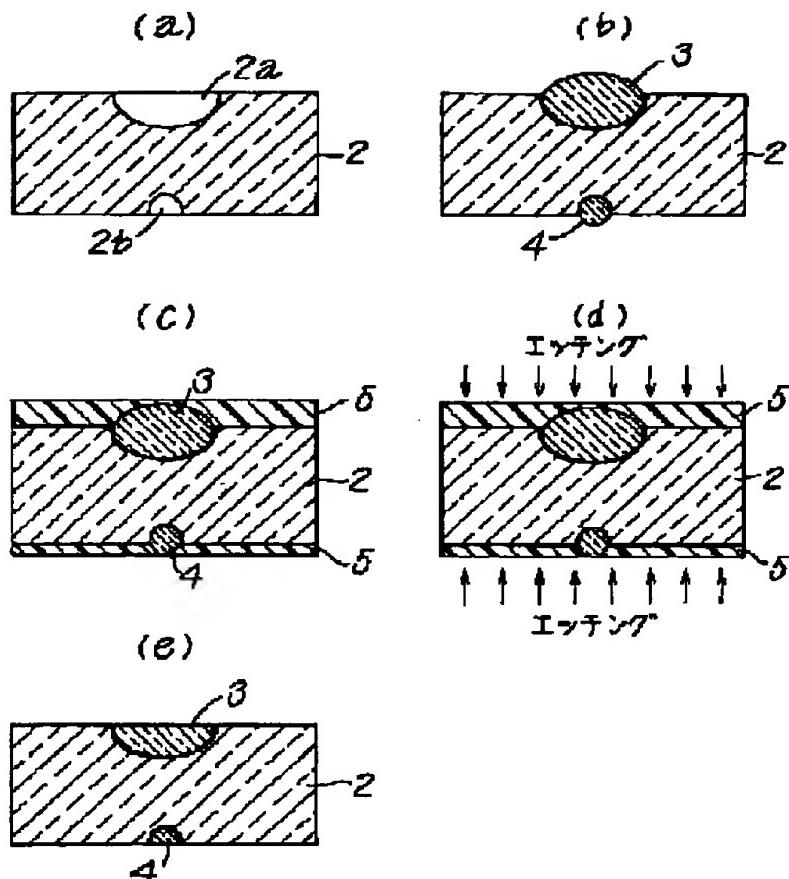
APPLICATION DATE : 12-12-97
 APPLICATION NUMBER : 09343141

APPLICANT : RICOH CO LTD;

INVENTOR : MIFUNE HIROYASU;

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TITLE : MANUFACTURE OF OPTICAL ELEMENT FOR OPTICAL PICKUP



ABSTRACT : PROBLEM TO BE SOLVED: To provide a manufacturing method for an optical element for an optical pickup capable of integrally forming the microlenses (objective lens and solid immersion lens) of optional refractive indexes on a flat substrate with high position accuracy by a simple manufacturing method.

SOLUTION: In this manufacturing method of the optical element of the optical pickup provided with the objective lens 3 provided with the function of converging collimated light and the solid immersion lens 4 whose optical axis is matched with the objective lens and refractive index is higher than the substrate arranged at a position closer to a recording medium than the objective lens for which at least one or more sets of the objective lens and the solid immersion lens are formed on one substrate 2, concave surfaces 2a and 2b are formed on both surfaces of the substrate 2, the lenses 3 and 4 of a shape matched with the concave surfaces whose refractive index is higher than the substrate are arranged at the two concave surfaces, the lenses and the substrate are fixed by a resin material 5 and then, they are flattened by etching or the like.

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